SYSTEM AND METHOD FOR SCHEDULING AND EXECUTING DATA TRANSFERS OVER A NETWORK

ABSTRACT OF THE DISCLOSURE

A system and method for scheduling transfers of data through a network, the system comprising a transfer module at each node in the network, the transfer module being configured to schedule data transfers according to available resources at each node. In one embodiment, the transfer module includes a scheduling module, a routing module, and an execution module. The scheduling module at each node evaluates a single hop request in view of objectives, such as a deadline, and the available resources at that node, for example transmit bandwidth, receive bandwidth, and storage space, all of which may change as a function of time.